REMARKS

Claims 38, 40-42, 45 and 53-58 are pending in the application. The Examiner has rejected claims 38, 40-41, 45, and 56 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0014521 to Elson et al. ("Elson") in view of U.S. Patent Publication No. 2003/0140090 to Rezvani et al. ("Rezvani") and U.S Patent Publication No. 2002/0141425 to Merani et al. ("Merani"). The Examiner has rejected claim 42 under 35 U.S.C. 103(a) as being unpatentable over Elson, Rezvani and Merani as applied to claims 38 and 46, and further in view of U.S. Patent No. 6,192,422 to Daines et al. ("Daines"). The Examiner has rejected claims 53-55 under 35 U.S.C. 103(a) as being unpatentable over Elson, Rezvani and Merani as applied to claims 38 and 45, and further in view of U.S. Patent Application Publication No. 2002/0108108 to Akaiwa et al. ("Akaiwa"). The Examiner has rejected claims 57 and 58 under 35 U.S.C. 103(a) as being unpatentable over Elson, Rezvani and Merani as applied to claims 38 and 45, and further in view of U.S. Patent Application Publication No. 2002/0069410 to Atmakuri et al. ("Atmakuri").

Applicant has amended claims 38, 40 and 42, and has added new claims 59-64. For the reasons set forth below, applicant disagrees with the Examiner's rejections. Applicant believes that independent claim 38 and dependent claims 40-42, 45 and 53-64 are in condition for allowance, and respectfully requests that they be allowed.

Examiner's Responses to Applicant's Arguments are Incomplete

In applicant's previous response to the Final Office Action issued January 17, 2010, applicant demonstrated that the prior art cited by the Examiner failed to disclose a number of claim limitations of independent claim 38. Applicant demonstrated that the cited prior art did not disclose a contention manager providing control to a pass through service for a first period of time as claimed in independent claim 38. Applicant further pointed out that the cited prior art failed to teach providing a web server at a remote control apparatus as claimed in independent claim 38.

In the Examiner's response to applicant's arguments, the Examiner only refutes part of applicant's arguments.

First, with respect to applicant's argument that the cited prior art (and particularly Elson) fails to disclose a contention manager configured to provide control of a first and a third port[1] to a pass through service for a first period of time as claimed in independent claim 38, the Examiner only responds to the "first period of time" claim element and fails to respond to applicant's argument that the prior art fails to disclose a contention manager configured to provide control of the first and third ports for a first period of time specifically to a pass through service. The Examiner states:

> a. Applicant argues that Elson does not disclose a Contention Manager configured to provide control of said first serial port and said third serial port for *a first period of time*.
>
> Applicant's arguments are moot in view of the new ground(s) of rejection.

Although the Examiner cites a new prior art reference (Merani) for allegedly disclosing providing access to serial ports "for a first period of time," the Examiner fails to identify any disclosure of a "pass through service" as claimed (and, hence, any contention manager configured to provide control to such a "pass through service") in any new or existing cited prior art. Accordingly, the Examiner has failed to identify any prior art reference that discloses the "pass through service" required by independent claim 38. Applicant thus submits that independent claim 38 is therefore patentably distinct from the prior art of record, and therefore respectfully requests that independent claim 38 be allowed.

Second, with respect to applicant's argument that the cited prior art (and particularly Resvani) fails to disclose a remote control apparatus that comprises a web server as claimed in independent claim 38 because Resvani instead teaches a separate

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[1] In the pending version of claim 38, the ports were specified as being "serial" ports. Applicant has currently amended claim 38 to drop the "serial" designation, which limitation is not necessary to overcome the cited prior art.

web server that is located <u>remotely from</u> the remote control apparatus, the Examiner simply glosses over this failure in the prior art. The Examiner states:

> b. Applicant argues that Rezvani with Elson does not result in the web server claimed in Claim 38 because the web server in Rezvani is located remotely from the monitoring module.
>
> Examiner respectfully disagrees. Rezvani's disclosure of — a web server configured to serve a web page providing a user interface for remotely controlling said first remotely controllable non-web enabled electronic device by sending remote control commands from said web accessible remote control apparatus through said first serial port over said first serial link to first remotely controllable non-web enabled electronic device — modifies Elson's disclosure of the contention manager to provide remote web access and control of devices to a user, not the monitoring module. Hence, Applicant's arguments are not persuasive.

Applicant does not understand the Examiner's response. Independent claim 38 claims a remote control apparatus having a particular structure. That structure includes that <u>the remote control apparatus itself</u> comprises a web server, not that there is a <u>separate</u> web server located <u>remotely</u> from the remote control apparatus, regardless of whether the remotely located web server provides a user interface for remotely controlling a device connected to the remote control apparatus. Independent claim 38 is an apparatus claim claiming a structure, not a method claim claiming a function.

Accordingly, the Examiner has failed to identify any prior art reference that discloses a remote control apparatus comprising a web server as required by independent claim 38. Applicant submits that independent claim 38 is therefore patentably distinct from the prior art of record, and accordingly respectfully requests that independent claim 38 be allowed.

Independent claim 38 is thus patentably distinct from the prior art of record at least because the prior art fails to disclose (a) a contention manager configured to provide control of the first and third ports for a first period of time specifically to a <u>pass through service</u> as claimed, and (b) a remote control apparatus <u>comprising</u> a web server as claimed. Dependent claims 40-42, 45 and 53-64 are dependent on independent claim 38 and include all of the limitations of claim 38 as well as additional. Accordingly,

Applicant believes that claims 40-42, 45 and 53-64 are allowable for at least the same reasons set forth above for independent claim 38. Applicant therefore respectfully requests that dependent claims 40-42, 45 and 53-64 be allowed.

Applicant additionally responds to the Examiner's rejections in the May 21, 2010 Office Action as follows.

<u>Examiner's Rejection of Independent Claim 38 under 35 U.S.C. §103(a)</u>

The Examiner has rejected independent claim 38 under 35 U.S.C. §103(a) as being unpatentable over Elson, Rezvani, and Merani. The Examiner states:

> As to Claim 38, Elson discloses an apparatus and method for providing universal web access functionality to one or more electronic devices comprising:
>
> a first serial port configured to transmit remote control commands over a first serial link to a second serial port of a first remotely controllable non-web enabled electronic device (Elson; Figures 30-32, paragraphs 251, 253, 259; serial ports communicating with controllable electronic devices such as cell phones, GPS, remote platform, etc; GPS devices and OBD devices were traditionally known to be non-web enabled devices), said first remotely controllable non-web enabled electronic device configured to be controllable by remote control commands received at said second serial port from a first remote control (Elson; paragraphs 141, 145, 147, 218-219; resource controlled remotely by requests from remote control devices such as a PDA), said first serial port further configured to receive status information from said first remotely controllable non-web enabled electronic device over said first serial link (Elson; Figure 11, paragraphs 145, 147; resource status);
>
> a third serial port configured to receive remote control commands for remotely controlling said first remotely controllable non-web enabled electronic device over a second serial link from a fourth serial port of said first remote control (Elson; Figure 30-32, paragraphs 141, 145, 147, 218-219; ports communicating with remote control devices such as a PDA);
>
> a contention manager configured to provide control of said first serial port and said third serial port [...] to a pass through service configured to create a bi-directional path between said first serial port and said third serial port for passing said remote control commands received over said serial link from said first remote control at said third serial port through said first serial port over said first serial link to said first remotely

controllable non-web enabled electronic device for controlling said first remotely controllable non-web enabled electronic device without requiring any re-programming of said first remote control or said first remotely controllable non-web enabled electronic device and for passing said status information received at said first serial port from said first remotely controllable non-web enabled electronic device through said third serial port to said first remote control (Elson; Figures 30-32, paragraphs 141, 145, 147, 218-219, and 227; passing control signals between PDA and resource);

Elson does not explicitly disclose, however Merani discloses that the contention manager is configured to provide control of said ports for a first period of time (Merani; paragraphs 83-84; timeout).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify a contention manager, as disclosed by Elson, to include time out values in order to provide control of ports for a period of time, as disclosed by Merani, in order to employ the use of one of many well known contention resolution strategies.

Elson does not explicitly disclose, however Rezvani discloses a web server configured to serve a web page providing a user interface for remotely controlling said first remotely controllable non-web enabled electronic device by sending remote control commands from said web accessible remote control apparatus through said first serial port over said first serial link to first remotely controllable non-web enabled electronic device (Rezvani; Figures 1-3, 11-12; paragraphs 105-106; web server with web page to provide user interface to control resources).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify a contention manager, as disclosed by Elson, to include a web server providing a user interface, as disclosed by Rezvani, in order to provide remote web access and control of devices to a user.

Applicant respectfully disagrees that claim 38 is unpatentable under 35 U.S.C. §103(a) as being over Elson, Rezvani, and Merani for the reasons set forth above, as well as the additional reasons set forth below.

Elson Does Not Disclose a Contention Manager Providing Control of the First and Third Ports to a *Pass Through Service* as Claimed

In applicant's previous response to the Final Office Action issued January 17, 2010, applicant amended independent claim 38 to more particularly point out what applicant regards as the invention. In particular, applicant amended independent claim 38

to more clearly specify that the remote control apparatus of the invention comprises a contention manager that gives control of the first and third ports for a first period of time **to a pass-through service** that creates a bi-directional path between the first and third ports that passes data received at the third port to the first port and data received at the first port to the third port during the first period of time. A web accessible remote control apparatus as claimed that comprises a contention manager that gives control to the first and third ports **to a pass through service** as claimed that creates a **bi-directional path** as claimed in amended claim 38 is not disclosed or suggested by the prior art of record, alone or in combination.

The Examiner contends that the claimed pass-though service is disclosed by "Elson; Figures 30-32, paragraphs 141, 145, 147, 218-219, and 227; passing control signals between PDA and resource." The Examiner does not identify which element in Figures 30-32 of Elson the Examiner contends is the claimed "pass through service" other than the Examiner referring to "passing control signals between PDA and resource." As applicant understands the Examiner's statement, the Examiner is asserting that the part of Elson that discusses "passing control signals between PDA and resource" is where Elson discloses the claimed "pass through service."

Applicant respectfully disagrees that Elson discloses a "pass through service" as claimed. Figures 30-32 show block diagrams of a PDA connected to the automobile network system of Elson. Figure 30, which is representative of Figures 30-32 of Elson, is reproduced below:
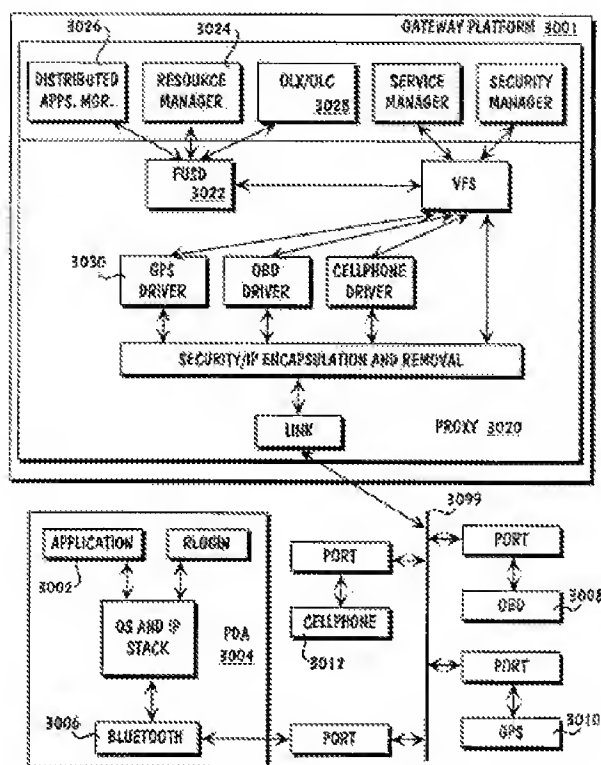
FIG. 30

As applicant understands the Examiner, the Examiner contends that GPS 3010 in Figure 30 is an example of a "remotely controllable non-web enabled electronic device" as claimed, that the "port" connected to GPS 3010 in Figure 30 is an example of the "first port" as claimed, that GPS 3010 includes the "second port" as claimed, (although no such second port is shown in the figures), and that the arrow between the "port" and GPS 3010 is a "first link" as claimed. Further, the Examiner contends that PDA 3004 is a "first remote control" as claimed, that the "Port" connected to Bluetooth port 3006 is the "third port" as claimed, that Bluetooth port 3006 is the "fourth port" as claimed, and that the link between the "third port" and Bluetooth port 3006 is the "second link" as claimed. Figure 30 with labels added showing the Examiner's correlation of the items in Figure 30 of Elson with the above-mentioned claim elements of claim 38 is shown below:

FIG. 30
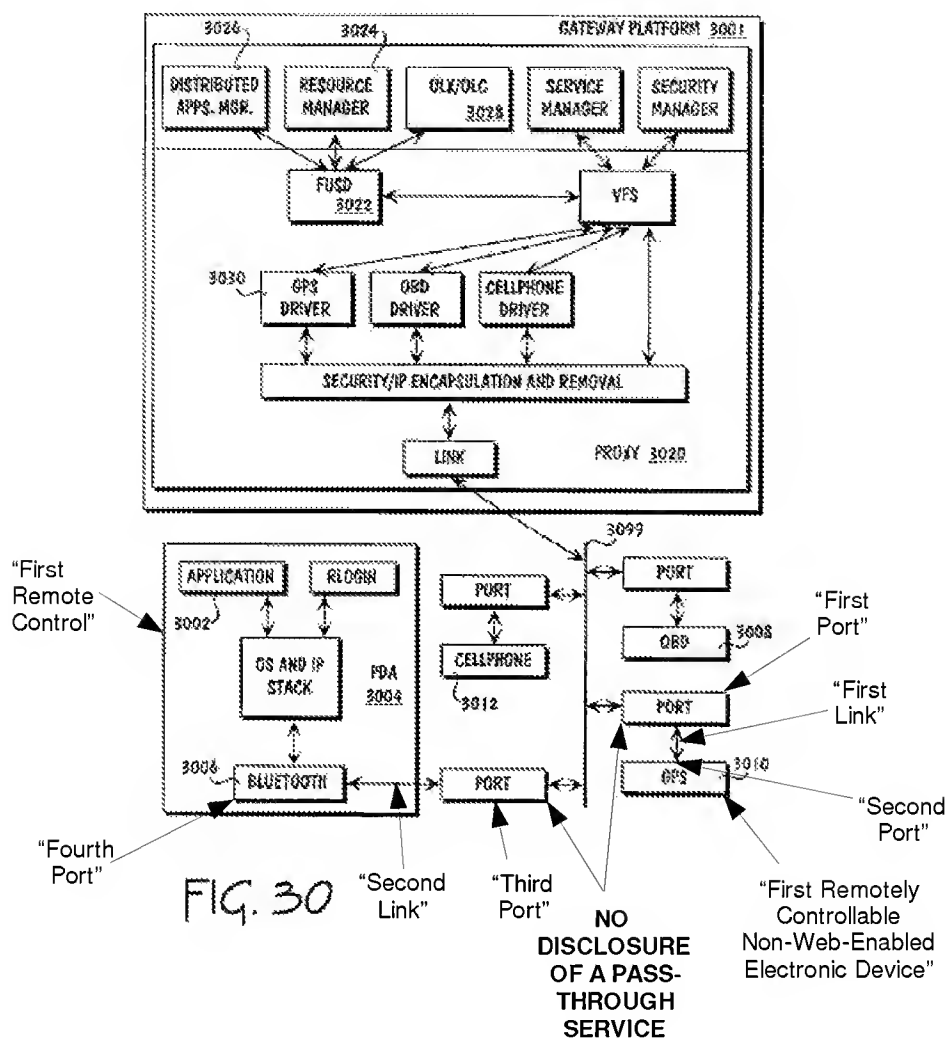
Independent claim 38, as amended, requires that the claimed web-accessible remote control apparatus comprises a contention manager that provides control of the first and third ports during a first period of time to a "pass through service" that is configured to create a bi-directional path between the first and third ports during the first period of time that passes <u>unaltered</u> data between the first and third ports. No such pass through service as claimed is disclosed in Elson in Figures 30-32 or in paragraphs 141, 145, 147, 218-219 and 227 cited by the Examiner. Cited paragraphs 141, 145, 147, 218-219 and 227 state:

> [0141] FIG. 20 is a block diagram showing resource request flow from multiple applications for a single resource using the platform architecture of an embodiment. Three resource request scenarios are described with

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reference to FIG. 20. In a first resource request scenario, Application 1 sends Request A to the UAX for audio resources including the /dev/dsp 2004, /dev/ahu 2006, and speakers 2002. Request A is granted, and the audio resources 2002-2006 subsequently receive the stream produced by /dev/tts (tts=text to speech) (not shown). Meanwhile, Application 2 sends Request B to the UAX to request dedication of the audio resources 2002-2006 to the stream produced by /dev/mp3 (not shown). Request B is not granted because the audio resources 2002-2006 are currently dedicated to Application 1 and are thus not available.

[0145] The UAX is responsible for granting application requests to user interfaces. To do so, it validates the request against UAX policies and checks with the UAC as to availability of the requested resource. The UAC is in communication with the Hardware Access Device Drivers (HADDs). The UAC informs the UAX of the resource status. The UAC thus provides a layer of abstraction to the UAX.

[0147] FIG. 21 is a block diagram showing the interactions among the UAX and UAC when handling an application request, under the platform software architecture of an embodiment. In this process, the UAX performs the roles of request granting (policy checking, resource status checking) and queuing and scheduling of requests. The UAC provides a unique, standardized point of access to the resource status for the UAX and a unique, standardized point of access to all the HADDs for the applications. The UAX and UAC interactions provide the policies that mediate access to the resources. While the HADDs contain the mechanisms for access (that is, issue the commands for particular actions to be taken by particular physical resources), the UAX and UAC determine which competing applications can gain access, and when they can gain access. Thus, neither applications nor HADDs need to be designed to account for the scenario in which multiple applications attempt to access the same HADD. Nor does application design need to consider the scenario in which multiple HADDs are accessed by the same application with kernel space controllers.

[0218] In operation, the user enters a PIN into the PDA 3004, triggering an authentication exchange. The PIN is verified as one that had been securely entered into the enterprise registry through a remote web access with the appropriate password. When the remote application 3002 is invoked, it registers with the proxy 3020, in this example hosted on the gateway platform 3001, and is assigned a UID with appropriate permissions. The remote application 3002 makes requests for GPS and OBD port data as if directly addressing these devices. However, the request is encapsulated in an IP tunnel and sent to the gateway platform 3001.

[0219] Upon being decoded, the request from the remote application 3002 passes through the FUSD module 3022 to the appropriate resource managers 3024 that check the UID against access policies, and then schedule requests to the device drivers 3030. As discussed above, this may involve several rounds of communications between the resource managers 3024 and the application 3002 if the requests cannot be immediately granted.

[0227] Another implication of the security and management framework described herein is that communications applications need not necessarily be hosted on a trusted device such as the gateway, or a set of trusted devices such as a distributed proxy. For example, a PDA couples to a network and establishes its credentials with the network. The recognized PDA then attempts a web connection to a remote site using a microbrowser or Wireless Application Protocol (WAP) forum stack. The cellular telephone used to make the web connection supports the lower levels of the protocol, but the proxy does not need to support any of the protocol, provided the request is encapsulated using a standard protocol. Thus, for example, a Bluetooth port may be used, with the WAP stack encapsulated as an bttp session that identifies the nature of the request and the protocol that is wrapped inside. A web server on the platform recognizes the UID that was assigned at login, and invokes the OLX for accounting, permissions, and scheduling of the session. **It is verified that the cellular telephone supports the WAP. The http encapsulation is then stripped and the message** *passed through* **to the cellular telephone. Substantially any protocol set can be treated in this fashion; the resource management software will** *pass through* **the session as long as the origin and destination devices understand the protocol and the session is encapsulated using a standard protocol understood by the proxy.** In this way communications protocols can proliferate over time, without the requirement for adding translation software to the proxy.

As pointed out by the Examiner, Elson discloses resource managers that manage competing requests for resources (including communications ports) from different applications. See, e.g. paragraphs 114-116 of Elson. Elson does not, however, disclose any pass through service that is given control of the first and third serial ports for a first period of time to create a bi-directional path between the first and third serial ports for passing unaltered data between the first and third serial ports during the first period of time, as claimed in independent claim 38 as amended.

Paragraph [0227] of Elson contains the words "pass through," but that is in the context of describing how the system of Elson, in one mode of operation, receives an http encapsulated message from a PDA, strips the encapsulation, and then <u>passes</u> the stripped message <u>through</u> to a cellular telephone. The paragraph thus describes at most receiving a message from a PDA, <u>altering it</u> by stripping it of its encapsulation, and then forwarding it to a cell phone. No pass through <u>service</u>, as claimed, that creates a bi-directional path that passes data <u>in unaltered form</u> between the first and third ports, is involved or disclosed.

Accordingly, Elson does not disclose the contention manager that gives control to a pass through service as claimed in independent claim 38, as amended. Nor are such contention manager and pass through service disclosed in any other prior art of record. Independent claim 38, as amended, is therefore patentably distinct over the prior art of record, and applicant respectfully requests that independent claim 38, as amended, be allowed.

<u>The Combination of the Web Server of Rezvani with Elson Does Not Result in the Web Server Claimed in Independent Claim 38, as Amended</u>

Claim 38, as amended, specifies that the claimed web-accessible remote control apparatus comprises a web server configured to serve a web page providing a user interface for remotely controlling the first remotely-controllable non-web enabled electronic device by sending remote control commands through the first serial port over the first serial link to the non-web enabled electronic device. The Examiner concedes that Elson does not disclose a web server as claimed, but states that Rezvani discloses a web server that provides an interface for remotely controlling a non-web enabled electronic device, that it would be obvious to combine the web server of Rezvani with Elson, and the result would be the web server as claimed in independent claim 38, as amended.

Rezvani discloses a web server 46 that serves web pages 47 that is located at a remote site from the "monitoring module" 28 that interfaces with controllable electronic devices as shown, for example, in Figures 1 - 2 of Rezvani. Figure 3 of Rezvani shows a

user interface 58 of monitoring module 28. However, as explained in the accompanying description of in the specification of Rezvani, user interface 58 is not served by a web server on monitoring module 28, but by the web server 46 located remotely from monitoring module 28. See, e.g., paragraph [0062] of Rezvani, which states:

> [0062] A virtual representation of each device 32, 32a, 32b, 32c, 32d may be stored as a record 94, 94a, 94b, 94c, 94d in the database of database server 48 of remote site 14. Each record may contain an entry for each resource and its associated components which make up the device. For example, record 94 for VCR device 32 may contain an entry 90, 91, 92 for each resource 60, 62, and 64, respectively, and an entry 90a, 90b, 90c, 90d, 91a, 91b, 92a, and 92b for each component 72, 74, 76, 78, 82, 83, 80, and 81, respectively. **In addition, a web page 47 may be generated by web server 46** by extracting the associated record for that device from database server 48 and creating a graphical, textual, tactile, aural, or other suitable user interface representation of that device **that the user may access via, for example, Internet browser 26.**

Rezvani thus discloses and teaches a web server serving a web page for remotely controlling an electronic device that is located <u>at a remote location</u> from the remotely controlling apparatus. The combination of the web server of Rezvani with the system of Elson would not result is a web accessible remote control apparatus comprising the web server as claimed in independent claim 38, as amended. Independent claim 38, as amended, specifically requires that the web server be a part of the claimed remote control apparatus, not be located on a separate server computer at a remote location that communicates with the remote control apparatus over a network, as disclosed by Rezvani. Accordingly, independent claim 38, as amended, is patentably distinct from the prior art of record for this reason as well, and applicant respectfully requests that independent claim 38, as amended, be allowed.

Dependent Claims 40-42, 45 and 53-64

Dependent claims 40-42, 45 and 53-64 are dependent on independent claim 38 and include all of the limitations of claim 38 as well as additional limitations not disclosed by the prior art of record, either individually or collectively. Accordingly, Applicant believes that claims 40-42, 45 and 53-64 are allowable for the same reasons set
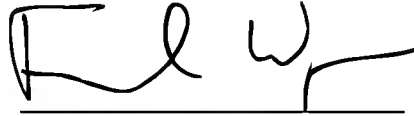
forth above for independent claim 38, as well as for the additional reason of including additional limitations not disclosed by the prior art of record. Applicant therefore respectfully requests that claims 40-42, 45 and 53-64 be allowed.

CONCLUSION

For the above reasons, applicant believes that amended claims 38, 40-42, 45 and 53-64 are patentably distinct from the prior art of record. Accordingly, applicant respectfully requests that they be allowed.

Respectfully submitted,

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